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HOSPITAL BUILDING NOTE

DEPARTMENT OF PSYCHIATRY (MENTAL ILLNESS) FOR A DISTRICT GENERAL HOSPITAL

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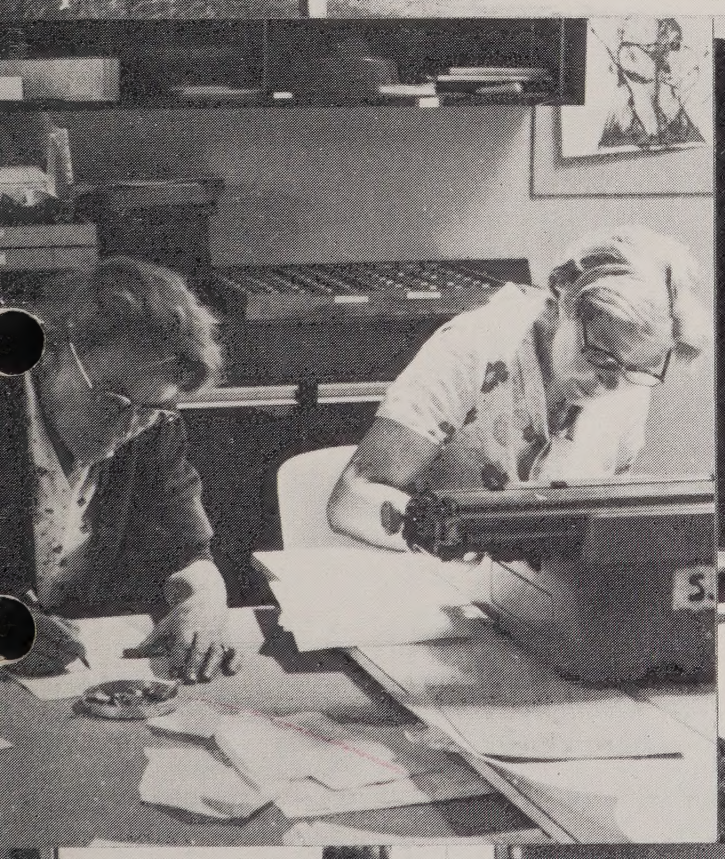

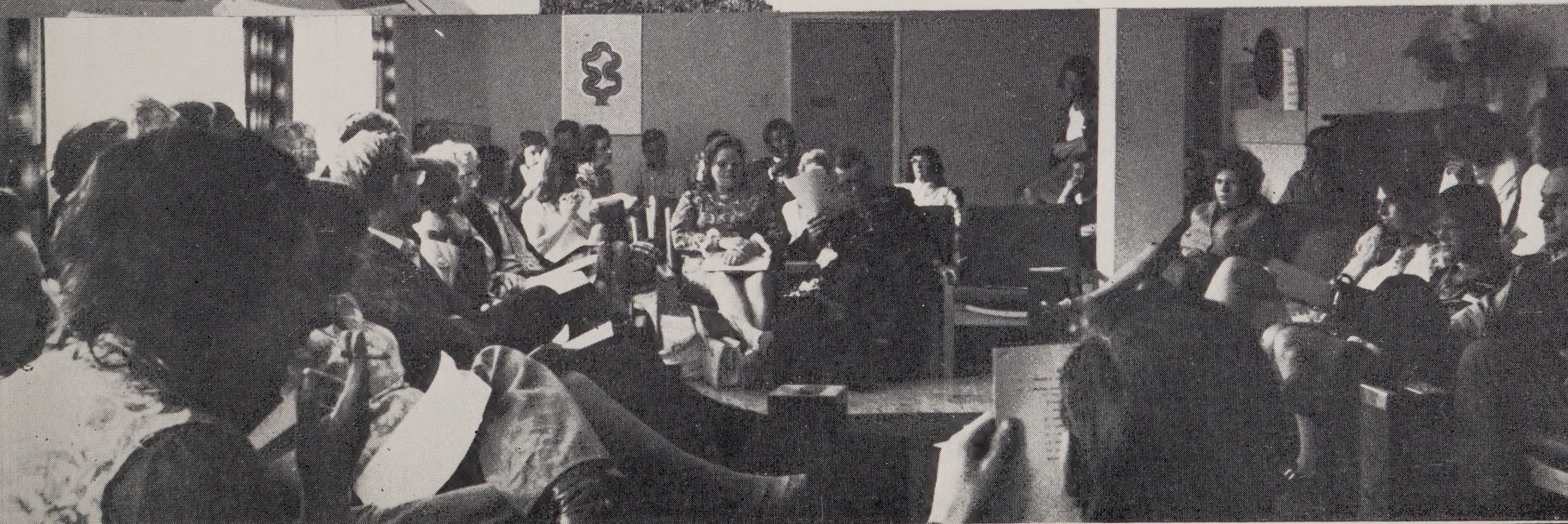

Department of Health and Social Security: London

Welsh Office: Cardiff

Hospital Building Note Number 35

Department of Psychiatry (Mental Illness) for a District General Hospital

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The photographs illustrate some of the activities in a typical psychiatric department in a district general hospital:

Top: A therapy group departing for a social project involving gardening work.

Centre, left: Training in the clerical section of the occupational therapy area.

Centre, right: Play area for children of patients attending occupational therapy; mothers and a children's nurse supervising.

Bottom: Patients and staff discussing their programme of activities at their daily meeting.

I. Scope

1. This Hospital Building Note provides guidance on the design of a psychiatric department in a district general hospital for the treatment of mentally ill adults with an annexe capable of various alternative uses. It supersedes Hospital Building Note No. 5: Short Stay Psychiatric Unit, and all references to mental illness in Hospital Building Note No. 30: Accommodation for Psychiatric Patients. It does not cover accommodation for children, or elderly patients whose mental illness symptoms are the result of physical disease or ageing, nor does it cover the accommodation needed for a regional medium security unit.

II. General policies

2. This Building Note should be read in conjunction with H.M.(71) 97 (and accompanying memorandum) on hospital services for the mentally ill. The concept is one in which in-patient, day-patient and out-patient services, together with local authority social services, form a comprehensive service to be used as flexibly as possible, and in which the emphasis is on rehabilitation and preservation of continuity of the personal relationships the patient has developed in his local community. There are three main elements in this concept. The first is the provision in the district general hospital (or group of general hospitals providing a district service) of a psychiatric department serving a defined local geographical district: preferably that corresponding to the district served by the other departments of the hospital or group of hospitals. The second element is the provision of social services in the community, and the third is the joint planning and operation of all these services, which entails among other things the setting up of multi-disciplinary therapeutic teams.

3. The aim of general policy should be to establish the psychiatric department as the centre for hospital treatment of the mentally ill, providing a further range of psychiatric hospital services for the adult population of the general hospital district and in particular taking all new admissions and re-admissions.

4. The relationship between the psychiatric department and the remainder of the clinical and social services in the district, including those provided by general practitioners and local authorities, must be close and clearly defined and evolved from effective consultation and collaboration between the authorities concerned from the outset of planning (see Figure 1).

5. There is bound to be some variation from area to area in what is hospital and what is local authority provision, but as a general rule the department should provide 24-hour (i.e. residential) accommodation for those patients who can be treated only on that basis or who need nursing care at night. It should contain day hospital facilities both for patients resident outside the hospital and for suitable in-patients from the wards, the main rehabilitation facilities forming part of the day hospital. The main facilities for out-patients, however, should not be in the psychiatric department as such but be integrated or associated with the general hospital out-patient department. The functions of, and relationship between, components of the psychiatric department and other departments of the general hospital are described in Sections III, IV and V and illustrated diagrammatically in Figure 2 (but see paragraph 40 and the introduction to the Appendix for location of the E.C.T. suite). There should be close links between the out-patient and rehabilitation departments of the general hospital, the day hospital of the psychiatric department and, when possible, the geriatric department. Other authorities provide related services. Local authority social services departments provide community social work services and administer hostels, residential homes, boarding-out schemes and houses for small groups of suitable patients, day centres, workshops and social amenities, e.g. clubs. Industrial rehabilitation units and sheltered workshops are provided under the auspices of the Department of Employment.

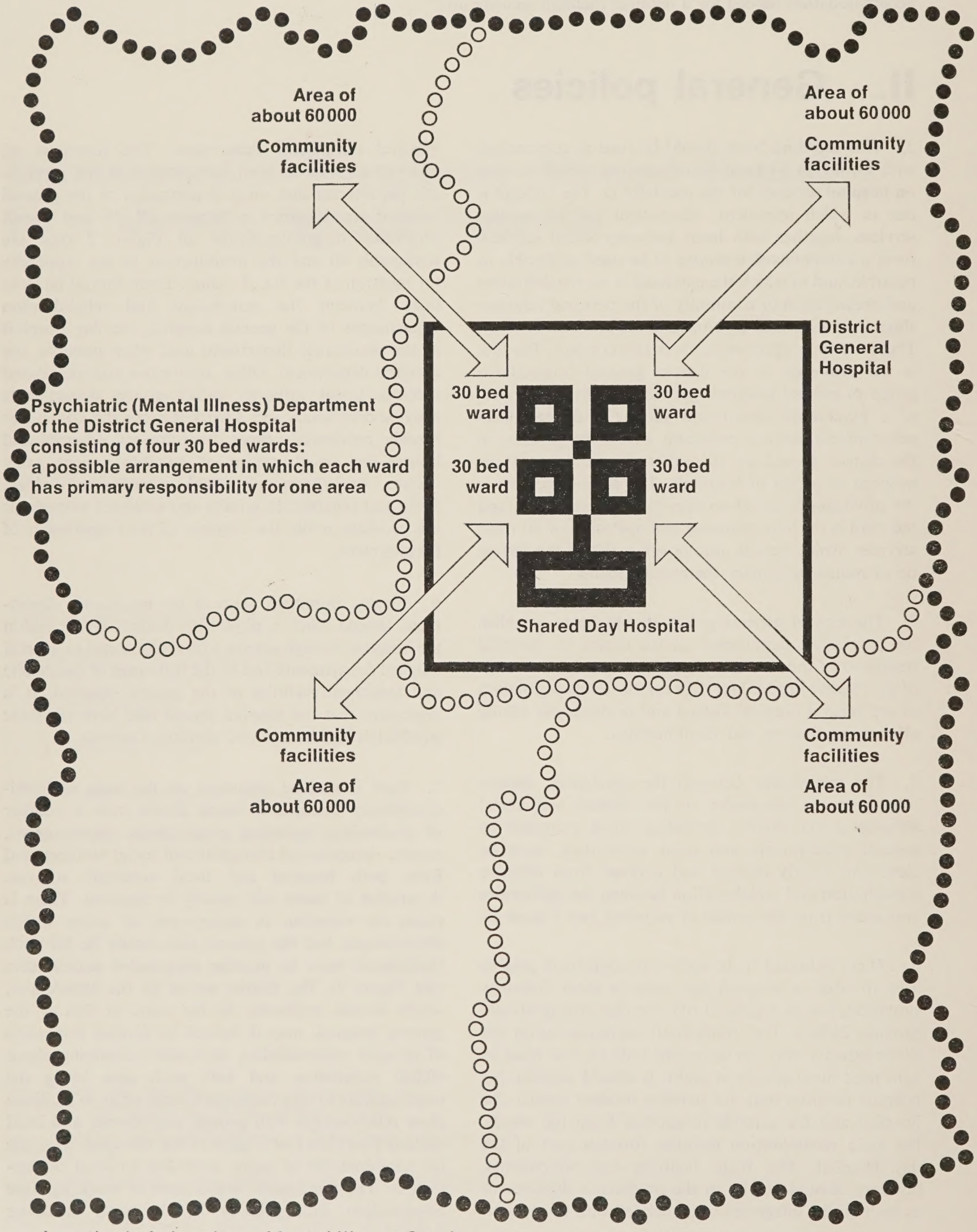
6. Ideally, in-patient areas of the psychiatric department should form a physically distinct entity within the hospital, though always with ready access to general medical departments and to the full range of diagnostic and treatment facilities of the general hospital. It is important that the hospital should also have adequate psychiatric assessment and geriatric facilities.

7. Staff should be organised on the basis of multi-disciplinary therapeutic teams drawn from a number of professions including psychiatrists, psychologists, nurses, occupational therapists and social workers, and from both hospital and local authority sources. A number of teams will usually be required. There is room for variation in deployment of teams within departments, but the general aim should be for each therapeutic team to practise progressive patient care (see Figure 3). The district served by the department, which should preferably be the same as that of the general hospital, may if desired be divided into areas of primary responsibility, each area containing about 60,000 population and with each area being the responsibility of one therapeutic team so as to facilitate close relationships with general practitioner and local authority services (see Figure 1) but there will be scope for combinations of teams according to local circumstances. The therapeutic teams need to work in close co-operation with primary health teams including

Figure 1

The Department of Psychiatry and its District

This diagram shows a possible arrangement of area responsibilities within the district with one therapeutic team serving each area of about 60 000 population; but there may well be scope for combinations of teams according to local circumstances.

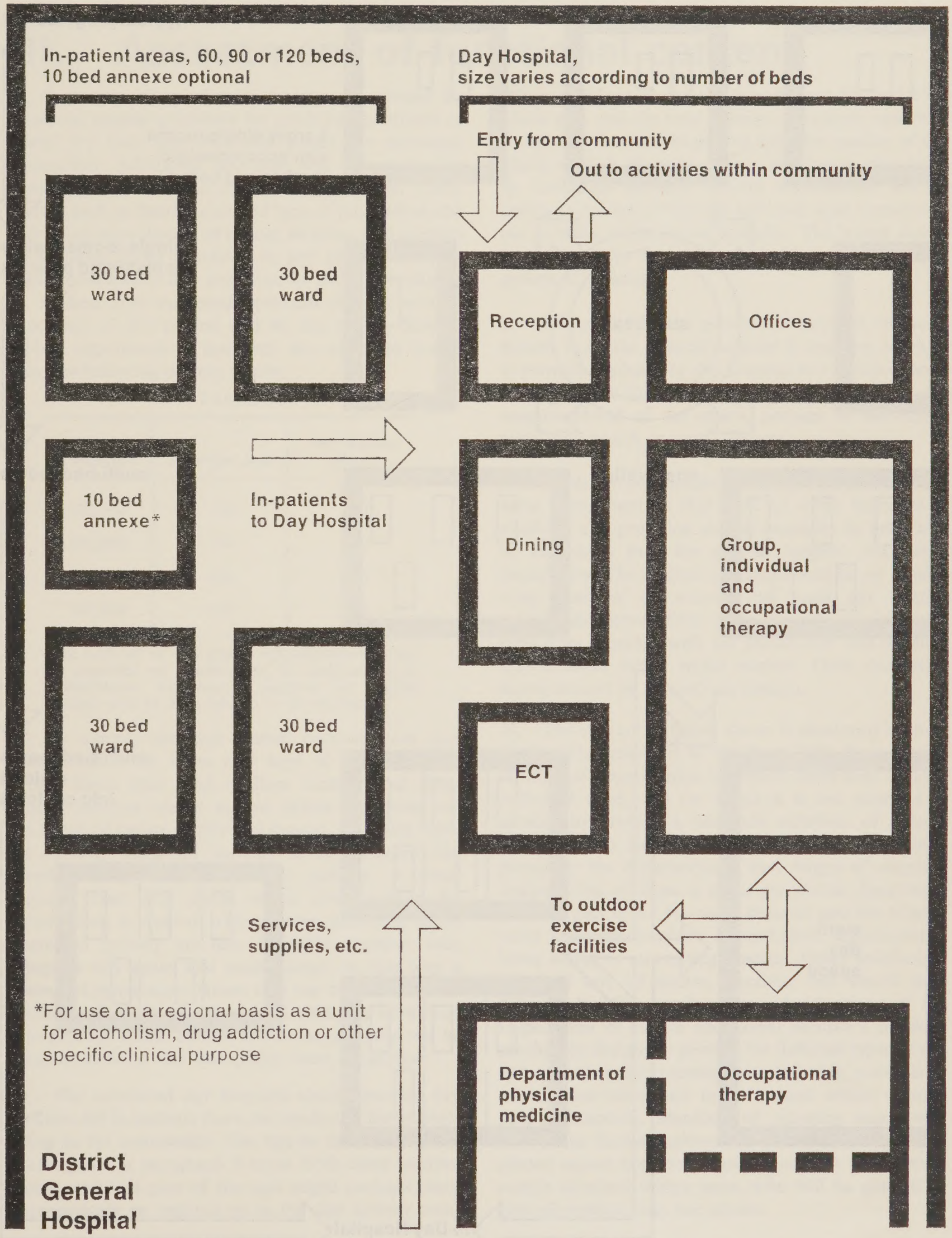

Area of about 60 000
Community facilities
Area of about 60 000
Community facilities
Psychiatric (Mental Illness) Department of the District General Hospital consisting of four 30 bed wards: a possible arrangement in which each ward has primary responsibility for one area
30 bed ward
30 bed ward
30 bed ward
30 bed ward
District General Hospital
Shared Day Hospital
Community facilities
Area of about 60 000
Community facilities
Area of about 60 000

A method of planning a Mental Illness Service for a district of 240 000 people

Community facilities include hostels, group homes, and day centres

Figure 2

The relation of main components of the Psychiatric (Mental Illness) Department to each other and the remainder of the District General Hospital

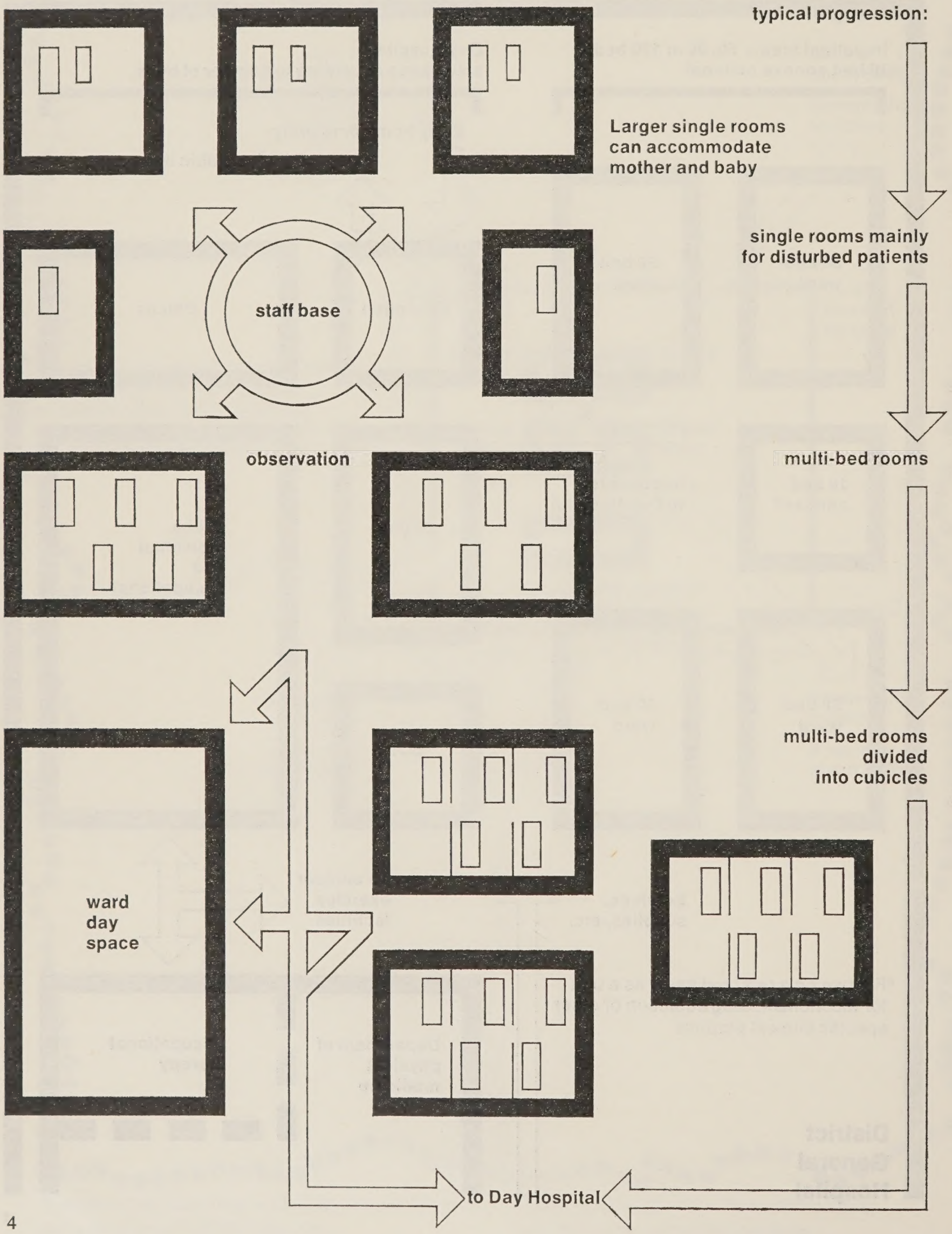


*For use on a regional basis as a unit for alcoholism, drug addiction or other specific clinical purpose

Figure 3

Progressive Patient Care within the 30 Bed Ward

This diagram indicates progression of patients, not arrangement of spaces (it is not to scale)



general practitioners, district nurses and health visitors, but this should not preclude a general practitioner from referring a patient to any consultant of his choice. Members of therapeutic teams will spend a good deal of their time with patients in the day hospital, and primary health team members should be encouraged to use the day hospital to help provide a total therapeutic service to patients. Liaison with local authority social services departments should be maintained through social work members of therapeutic teams.

8. The nursing staff of the psychiatric department should be under the control of a senior nurse who should be responsible for nursing care in the wards, the day hospital and community work done by nursing staff of the department. The nurses in charge of each section should ensure that nursing members of teams develop and maintain a therapeutic relationship with all their patients, whether in the ward, the day hospital or at home, and take a full part in team consultation and discussion.

III. Assessment of functional content

9. Provision of psychiatric departments should be based on general guidelines for adult mental illness of about 0·5 beds and 0·65 day places per thousand population. Additional provision will be needed for special groups such as disturbed adolescents. Local factors such as distribution and type of population and morbidity rates should, of course, be taken into account in deciding actual provision in any given area. This Note recommends that provision be made in multiples of 30 beds (the suggested optimum size for accommodation of this nature) and 40 day places. Since a 60-bed department is probably the minimum viable size, the following pattern results:

TABLE 1

Population	*In-patient beds*	*Day hospital places*
120,000	60	80
180,000	90	120
240,000	120	160
300,000	150	200

The number of day places recommended should be regarded as a minimum. In addition many departments will require annexes for special groups such as drug addicts or alcoholics.

10. A suitably designed general purpose ward may accommodate all types and ages of adult patients except those who need medium security and those elderly patients whose mental illness symptoms are the result of ageing or physical disease. It should allow for severely disturbed patients to be managed discreetly without distressing other patients. A small separate area with single rooms and facilities for observation is needed. Other areas providing some degree of privacy are also desirable, together with adequate day space and quiet rooms. In this way a system of progressive patient care can become possible within each ward or department with the advantage that patients whose clinical status changes need not be transferred from one therapeutic team to another.

11. The associated day hospitals should provide day facilities for in-patients from the wards and for patients living in the community. The figures for day hospital places given in paragraph 9 cover both these requirements, and this part of the unit might perhaps more appropriately be referred to as the day activity area. Patients will not necessarily attend every day or for the whole day, and the total number of patients registered at any one time will be greater than the number of day places needed. Because of the variation in attendance by individual patients, careful organisation will be necessary to ensure that the best and most economical use is made of the places available. The layout should be designed to encourage friendships among small groups of patients.

12. Where part of the population served is relatively distant from the general hospital it may be desirable to provide a subsidiary day hospital in a suitable centre of population for patients resident in and from the neighbourhood of the centre, perhaps in association with other health or social services.

13. There are advantages in seeing out-patients in the same department as that used by other branches of medicine and provision should normally be integrated or associated with the general hospital out-patient department. The medical staffing should be on a minimum basis of six sessions per week per 100,000 population served. Each clinic session will involve a consultant together with his junior staff and possibly also a nurse and a social worker. Three consulting rooms should be allowed per session.

14. The concept outlined above is developed in more detail in the remainder of this Note. With the exception of 150-bed departments, for which there may be only a limited need, and for which it is not intended at present to provide a complete schedule of accommodation, the guidance in this Note has been interpreted by the department in two ranges of standard designs. One of these is for a psychiatric department which is part of a "Harness" hospital and the other is more appropriate where a psychiatric department is being added to an existing hospital. Other satisfactory solutions are, of course, possible, but would have different building implications. Modifications of the Department of Health and Social Security's standard psychiatric designs to provide for different types of site and operation may sometimes be desirable, particularly where departments are to be created within existing general hospitals. Members of planning teams who would like further information on this or any other related aspect are encouraged to contact the Department's standard design team, who will be pleased to give all possible help and advice.

IV. Site factors and building shape

15. Although the psychiatric department is an essential part of the district general hospital, there are advantages in planning it separately, linked to rather than incorporated within the main hospital block. Having advocated the attachment of the department to the district general hospital, it may appear contradictory to suggest that it should not be too fully integrated but a major consideration is the difference in tempo of activity. Many psychiatric patients need help towards developing their independence; this should be reflected in the attitudes of the staff and in the physical character of the department. In general, the department should not give the impression of being a place where everything moves to a timetable but one where a more relaxed (though active) atmosphere prevails.

16. The department may be planned as a "satellite" connected by an enclosed link to the communications system of the main hospital, or may be more closely incorporated into the physical structure of the general hospital. In the latter case, however, care must be given to the mutual interactions of the department and the rest of the hospital. The behaviour of psychiatric patients must not be inhibited by the constraints of the general hospital; for example, day areas must be placed so that noise from evening activities does not disturb other users of the hospital.

17. The day activity (day hospital) and the in-patient areas should in either case be physically distinct one from the other, so that there is a sense of progression for the in-patient who goes to the day hospital. This must have direct external access with the easiest possible route for the day patient coming to it (see Figure 2). Access from the wards must be so arranged that patients, if they have to traverse the main hospital communications system, follow a route as short as possible and one which avoids busy parts where there is much other traffic.

V. Planning policies

General considerations

18. The environment of the department should be domestic rather than institutional in character. Whilst the function, grouping and size of many of the rooms and spaces may not be very different from those in more acute areas of the hospital, items such as ceiling heights, fittings (e.g. lighting), finishes (e.g. carpet wherever practicable), doors and furniture should be designed or selected to create a reassuring rather than a formidable atmosphere. Such items also need to be carefully chosen having regard to their fire resistance, and in this connection guidance on the fire precaution aspects for structural elements, internal linings and finishes is contained in Hospital Design Note No. 2: Protection Against Fire; fire precautions generally are covered in Hospital Technical Memorandum No. 16: Fire Precautions. Planning should be as lucid as possible, so as to minimise patient disorientation. All features which could cause alarm or uncertainty should be avoided; for example, where observation is needed, the fact should not be disguised by secretly operated blinds, etc.

19. Solar protection should be provided to all rooms used during the day by staff or patients, where this is necessary because of their aspect. Blinds, curtains or obscured glazing will need to be provided for any room which can be overlooked if it is considered essential that this should be avoided in the area concerned.

20. A greater degree of sound attenuation is needed for single bedrooms, offices, interview, consulting, treatment and group therapy rooms than for the rest of the department.

21. Bars and special locks should not be necessary in this department. Spaces should be planned to afford the necessary observation based on staff–patient interaction rather than on custodial care. Windows in bed areas, however, should not open wide enough to allow patients to use them as a means of exit or intruders to obtain entry.

Wards

22. Each 30-bed ward should contain single rooms and multi-bed rooms (some capable of being divided into cubicles) for each sex, and may be arranged in such a way that patients can be accommodated according to degree of dependence upon nursing care, ability to mix with other patients and extent of behaviour disorder. This will normally be helped by providing single rooms in the high nursing dependency area, multi-bed rooms in the intermediate nursing dependency area and multi-bed rooms divided into cubicles in the minimum nursing dependency area (as in the Appendix and the standard department design range) but other configurations may be appropriate in some cases. Ward areas should be designed to permit variation in the distribution of beds among the sexes, bearing in mind that there is usually a greater demand for beds for female patients.

23. The following paragraphs give an indication of the differing degrees of nursing care that may be required within a ward, and suggest a way in which accommodation may be arranged to meet these varying needs (see Figure 3):

(i) *High nursing dependency:* patients in this group may be very ill, requiring nursing in bed. Relationships will

be chiefly with nurses at first, but patients will mix as their condition improves. Up to five single rooms (but see paragraph 47) may be required for patients of either sex who are seriously disturbed or need complete privacy day and night, for example while receiving some particular form of treatment. Rooms should be located close to the staff base; the siting of single rooms away from the staff base should be avoided. One or two of the rooms should be made available for mothers with babies up to about one year old, and should be capable of accommodating the baby's cot beside the mother's bed. Some patients will be capable of using a toilet and washbasin, while others may be washed in bed, but an assisted shower and bathroom should be accessible. Close association of the staff base and clean and dirty utility rooms with the beds in this area is essential but, if possible, supply and disposal traffic for these should not traverse the bed areas.

(ii) *Intermediate nursing dependency:* these are patients who for various reasons cannot yet be safely allowed to move around the department and whose behaviour patterns require further assessment. Most patients will be ambulant for varying periods during the day, but will continue to require nursing observation; as their clinical state improves, patients should be encouraged to use the day activity (day hospital) area, including the dining room, accompanied by nurses. Full independence for the patient will not, therefore, be appropriate at this stage of treatment but personal dignity and privacy must be maintained at all times, and multi-bed rooms are preferable in these circumstances as they are relatively easy to supervise, assist in maintaining some group feeling and afford sufficient privacy. The rooms should be located in close association with the staff base and clean and dirty utility rooms but each patient area, i.e. bed area and associated day space, should be planned to exclude general circulation and should, if possible, contain individual toilet facilities; bathroom accommodation should be adjacent. One five-bed room for each sex should allow full and close nursing supervision when necessary. The provision of rooms accommodating two or three patients should be avoided.

(iii) *Minimum nursing dependency:* most patients in this group will be ambulant, able to make full use of occupational therapy and other facilities, and consequently will be away from the ward for much of the day, usually in the day hospital. Three multi-bed rooms, each containing five beds and capable of being divided into cubicles by use of furniture and partitions should be provided. The usual sex ratio is such that two of the rooms are likely to be used for female and one for male patients.

24. The following paragraphs describe the ward ancillary accommodation required:

(a) Day/dining space

25. A small amount of sitting-out space should be provided within both the single and the multi-bed rooms. Separate day space for the ward as a whole should also be provided and sub-divided into quiet and more active areas. Within this space there should be facilities for a limited amount of occupational therapy, including associated cupboard storage space. It will also serve as a dining area for patients not yet ready to leave the ward.

(b) Sanitary

26. Provision for patients in single and multi-bed rooms should be similar to that recommended for acute wards in the general hospital. For patients in the multi-bed rooms divided into cubicles, who may be away from the ward for considerable periods of the day, the scale of provision should be reduced. W.c's and washbasins for male and female staff should be provided in each ward.

(c) Staff base

27. One staff base should be provided in each ward.

(d) Clean utility

28. One room should be associated with each staff base.

(e) Dirty utility

29. One room, with disposal area, should be provided in each ward.

Annexe

30. Many departments will need annexes of about 10 beds for special groups who cannot be treated with other patients. Annexes could be used for assessment or treatment of a variety of types of patients: for instance, addicts, alcoholics, or possibly others needing a high degree of observation or special forms of treatment which cannot be managed within a 30-bed ward. Annexes could also be used for specific research projects. Provision should be on a sub-regional basis, each annexe specialising in one particular special group of patients. The use to which the annexe is to be put should, however, always be clearly established at the planning stage.

31. It should be possible to nurse both sexes in the annexe, and depending on need there might be six single rooms (but see paragraph 48) and one multi-bed room of four beds with full observation. There should be sufficient day/dining and occupational therapy facilities for all patients, and the space allotted should be larger than usual to enable some day-patients to return to this area. Equally, some patients as they improve should join in the general activities in the main day activity area (day hospital). The day space should have adequate storage space for occupational therapy equipment. If space on the site allows, a hard court area should be located close by for ball games and other outdoor activities.

32. Annexes should be sited to allow easy access for nursing staff from one of the wards, particularly to give emergency additional cover at night. As the commonest use is likely to be for patients with behaviour disturbances, greater emphasis should be placed on the security

of the building. The number of entrance/exit points should be minimal so that effective patient supervision can be maintained at all times, and external doors should have locking devices which can be used when necessary to prevent patients absconding (see paragraph 47). The need to maintain a domestic atmosphere where relief from anxiety and tension is dependent upon human relationships is otherwise unchanged.

Day hospital

33. Availability of a day hospital linked functionally to the general hospital offers an alternative to in-patient admission for patients who do not require 24-hour supervision. It permits earlier discharge from hospital and may also be used as a step forward in progress for in-patients who have recovered sufficiently to leave the wards.

34. The day hospital need not necessarily be part of the main general hospital building, and some separation is of positive benefit (but see paragraph 16 with reference to integrated psychiatric departments). Subsidiary day hospitals (see paragraph 12) will, of course, be separate in any case. For preference the day hospital should form a distinct part of the psychiatric department, fairly close to the in-patient accommodation but easily accessible to patients living in the community, who should not be obliged to enter the in-patient accommodation or the general hospital complex in order to reach the day hospital. Site factors may sometimes necessitate location of the day hospital outside the general hospital curtilage, but this is to be avoided if at all possible as the advantages of close functional relationships with general hospital departments, including the psychiatric in-patient areas, diminish with increased physical separation. To provide adequately for specialised patient activity and diverse daily routine the accommodation should be restricted as far as possible to ground floor level regardless of building location. Clinical areas apart, the day hospital should match the wards in domestic scale and atmosphere. Although intensive therapeutic activity is envisaged, building and equipment materials, fittings and finishes should be aesthetically pleasing yet robust and reasonably economical to maintain.

35. The day hospital—otherwise referred to as the day activity area—should offer a broad range of (i) clinical facilities, (ii) rehabilitative work (including industrial work and sometimes workshop work) and (iii) social activities. Some patients may go to the rehabilitation department of the general hospital for any specialised occupational therapy activities available there and may also use its gymnasium. The day hospital should cater for group activities involving not only patients and staff but also those relatives, friends and others whose contribution will help to create and maintain continuing links between patients and the community. It is, however, equally important that the unit should itself be outward looking and that patients, particularly those who have to stay as in-patients for several months, should not come to depend on the department for all their social and leisure activities. Patients should be encouraged and helped by staff to take advantage of facilities such as parks, cinemas, libraries, etc., available locally.

36. A staff seminar/conference room and teaching rooms and offices for nursing, social work, domestic, administrative and other staff should be provided; facilities should also be included for community based social workers who will be closely associated with the work of the day hospital.

37. Where the general hospital has a teaching function one group therapy room should be designed so that students may observe a session from outside. This room should have a one-way glass panel in the wall adjoining the observation room and sound equipment to enable observers to hear conversations. The room itself should have carpets, curtains, soft furnishings and unobtrusive wall treatment. The structural ceiling should be sound treated on its underside and the lighting fittings may be incorporated in a suspended ceiling. As an alternative to a one-way glass panel, closed circuit television might be installed.

38. Provision should be made in the day hospital for storage and administration of drugs.

Common provision

39. The following paragraphs describe accommodation and facilities which relate to the psychiatric department as a whole:

(a) Electro-convulsive therapy suite

40. The department will require a treatment suite, which may form part of the day hospital, which in-patients and day-patients can attend for E.C.T. and other forms of physical treatment entailing special equipment and nursing care. A suite enabling 12 patients to have treatment at any one session should suffice for most departments. E.C.T. treatment should be provided in the suite for in-patients and day-patients on an appointments system; the staff should normally remain in a fully equipped treatment room where the patients are anaesthetised, given E.C.T. and taken subsequently to a recovery area; however, it should be possible to give E.C.T. to in-patients in bed areas if necessary. The suite should include a small waiting space and anteroom with toilets adjacent, a consulting room with couch for physical examination, a room where E.C.T. can be given with appropriate anaesthetic apparatus and an area with screens or curtains where patients can recover following treatment. The treatment room should have a washbasin with elbow-action taps and space for storing E.C.T. equipment. Lockable storage space should be provided for patients' personal valuables.

41. Rooms should be designed for alternative uses wherever possible, as the suite will occupy a great deal of space and will not be used continuously—for example the recovery room might be made available for group

therapy sessions and the consulting room for interviewing patients and relatives; the treatment room could also be used as a minor treatment room for simple dressings and other physical treatments as required, in which case it should be mechanically ventilated and related to a clean utility room and disposal area.

(*b*) ***Patients' central dining facilities***

42. The central dining room should normally form part of the day hospital. It should cater for all in-patients who are well enough to leave the wards and therefore should be easily accessible from the wards. Day-patients living in the community but attending for part or the whole of the day should also take appropriate meals and light refreshments in the dining room. The room should be suitable for use as a hall for occasional concerts, film shows, parties and meetings, and should be sub-divided with curtains or movable room dividers to minimise its apparent size. It should be available with other rooms in the day activity area for use by all patients during the evenings.

43. Patients should be able to select dishes from a cafeteria-type servery counter, probably supplied by bulk food trolleys from the general hospital kitchen. Some additional facilities for preparing hot snacks will be required if the main kitchen is remote. Frozen foods might also be prepared here for eating, if their use becomes widespread. Meals for patients remaining in the wards may be served from the day hospital dining room servery or direct from the general hospital kitchen, and in both cases a tray service with choice of menu is desirable. Dishwashing facilities will be required, including a large machine, if use of central facilities is impracticable.

(*c*) ***Staff dining facilities***

44. Apart from preparing beverages in the department, staff should use the general hospital dining facilities.

(*d*) ***Maximum observation***

45. Some patients may need to be treated under special conditions including maximum observation. Potentially suicidal patients are an obvious example, but provision should also be made for potentially violent patients and others, such as persistent absconders.

46. Except for those in the occupational therapy and social areas of the day hospital, windows throughout the department should have restricted opening. Special attention should be given to all bathrooms and toilets, which may need to be windowless or fitted with windows of a design which would prevent exit if the glass (which should be toughened and obscured) were to be removed or broken. Certain rooms, for example clean and dirty utility and pantries, should have doors which may be kept to a minimum.

47. All single rooms in high nursing dependency areas of the wards should have doors which may be opened from outside if barricaded from within. There should be recessed lighting at ceiling and bed-head, standard bed-head units with demountable hand units or equivalent facility and removable furniture, for example bedside lockers. Two of these rooms should be further adapted for treatment of highly disturbed and potentially suicidal patients: windows and doors should be fitted with toughened glass, doors should be lockable from outside by means of keyless fastenings and mirrors should be toughened or splinter-proof.

48. Two single rooms in the annexe should be fitted out as described in paragraph 47.

(*e*) ***Nursery***

49. A small nursery containing cots and equipment for a maximum of four babies should be attached to each ward. This is intended for the babies of mothers who are patients either in the intermediate or minimum nursing dependency areas, or in the day hospital.

(*f*) ***Non-resident staff changing***

50. Provision should be made for male and female staff and sited centrally within the general hospital or the department.

(*g*) ***Flowers***

51. An area should be provided in each ward and annexe for care and disposal of flowers and plants.

(*h*) ***Supply and disposal***

52. To reduce ward traffic all storage and disposal areas should, where possible, be accessible from main supply and disposal routes.

(*i*) ***Domestic facilities***

53. The domestic services should be provided by a team working under the general hospital cleaning arrangements: the team should be allocated by the central office. Subject to the pattern of service each ward, annexe and day hospital should have a cleaners' room with sufficient space for storage of cleaning materials and equipment for local use and including lockable staff lockers for personal valuables.

(*j*) ***Visitors***

54. Visitors should use the central waiting space and nearby toilet facilities. A room may be required for accommodating relatives or friends of patients who are seriously ill, but provision should depend upon whole hospital policy and accommodation in the general hospital should be used where practicable.

(*k*) ***Medical records***

55. Initiation of all psychiatric records should be undertaken in the central medical records department of the general hospital except for those concerned with emergency/night admissions which should be compiled in the department at reception or ward level. Current

records for in-patients should be stored at ward level and should accompany patients proceeding to other sources of treatment while those current for day-patients and domiciliary cases should be stored in the day hospital admission and records office. Lockable storage facilities should be available both in the wards and the records office. Out-patients' records should be kept in the central medical records department, where records of all patients who cease to require hospital treatment or domiciliary care should also be stored.

(l) External space

56. Landscaping and decorative treatment of the spaces around the building will be essential as the therapeutic environment of the department should be reflected in its immediate physical surroundings. Some areas should be laid out for outdoor games, occupational therapy gardening and sitting out. Access to outdoor spaces should be provided from a number of locations, in particular the day hospital nursery, dining room and general occupational therapy areas.

VI. Engineering services

General considerations

57. The engineering services should be designed and installed to ensure ease of maintenance and minimum interruption of services and working of the department while repairs, maintenance and extensions are being carried out.

58. Facilities should be provided for the easy installation of meters in case they may be required at any time for departmental costing purposes.

59. Ward areas should be designed so that most rooms can be naturally ventilated and during daylight hours reliance placed mainly on natural lighting; mechanical ventilation should be restricted to a few rooms. Exceptional factors such as the depth, height and siting of the building, as well as medical and nursing requirements, may necessitate more extensive mechanical ventilation and artificial lighting. Deep-planned spaces, such as multi-bed rooms, may need supplementary mechanical ventilation.

60. Users' requirements and working arrangements should be carefully considered in placing service outlets.

61. The need for adequate fire protection of the buildings should be taken into consideration in the design of engineering services, especially ventilation schemes. These requirements should be considered during the early stages of design. Reference should be made to Hospital Design Note No. 2: Protection Against Fire, and Hospital Technical Memorandum No. 16: Fire Precautions. Advice on the fire-fighting installations proposed should be sought from the Chief Officer of the local fire authority at an early planning stage.

62. Facilities required for commissioning purposes must be allowed for in the detailed design of services (see Hospital Technical Memorandum No. 17: Commissioning of Hospital Engineering Services). Ease of access to engineering controls is important for this purpose and for ease of maintenance, and these controls should be sited in circulation areas rather than working areas wherever practicable.

63. The problems of production and transmission of noise should be carefully studied in the design of the ventilation system and the installation of workshop machinery. For further guidance see Hospital Design Note No. 4: Noise Control. Care is required to ensure privacy of conversation in consulting and interview rooms and in preventing noise from the workshop being transmitted at an unacceptable level to adjacent areas.

64. If a workshop is provided, the local District Inspector of Factories must be consulted about the arrangement and guarding of power-operated machines and the provision of appropriate dust-extraction equipment to ensure the safety and welfare of patients and staff in the workshop.

65. Special care should be taken to avoid features which might cause injury to patients. Precautions should be taken at the design stage against the possibility of interference with engineering services by patients. Accessories in areas used by patients should be of tamper-proof design wherever practicable, especially where they are fixed at less than 2 m above floor level. In the annexe all accessories should be of tamper-proof design and all exposed fixing screws should be of socket or similar type.

Mechanical services

Heating

66. The space heating system (excluding that in the in-patient accommodation) should be designed so that it can be run at reduced level to save fuel when the department or sections of it are not in use, either at night or during weekends. Sufficient heating should be provided at all times to prevent excessive condensation on walls; this can usually be achieved by ensuring a minimum temperature of 10°C at all times. The system must have sufficient capacity and be of such a design as to enable it to attain working temperature in about three hours. The space heating system in the in-patient accommodation should be designed for continuous operation in winter and for intermittent use as necessary in summer.

67. Zoned temperature control of the heating system may be needed to allow for widely varying heat-loss conditions. This applies especially where the building has a high proportion of glazing.

68. Space heating requirements should be calculated on the design temperature and ventilation rates listed in Table 2, based on an outside temperature of minus 1°C:

TABLE 2

Accommodation/activity	*Temperature*	*Air changes per hour*
E.C.T. treatment room Room for abreaction, behaviour therapy, etc.	21°C	6
Art Bedroom Consulting and interviewing room Day room Dining and day space Dressmaking Entrance General craft and industrial work (sedentary) Group therapy room Music Nursery Quiet day room Recovery room Relaxation	21°C	3
Ante-room Bathroom and shower Beauty room Clean utility/preparation room Local authority base Office Patients' utility room Reception, enquiries and waiting space Staff base Staff changing	21°C	2
Dining room Staff seminar/conference room	18°C	3 (*a*)
Patients' cloakroom	16°C	(*b*)
Industrial work (active) Kitchen	16°C	3
Cleaners' room Dirty utility/disposal room Pantry Shop Toilet	16°C	2
Flower alcove Store Trolley and wheelchair bay	10°C	½

(*a*) Twenty air changes per hour should be provided when the rooms are in use for film shows. This additional air must be heated.

(*b*) Sufficient air circulation for drying patients' outer clothes; 6 air changes per hour will usually be sufficient.

69. A conventional low-pressure hot water heating system, which has low installation and maintenance costs, should be suitable for use in most areas of the department.

70. Heating surfaces should normally be placed below windows and against exposed walls to counteract cold air currents. If surface-mounted heating equipment is used it should be fixed with sufficient clear space below to allow for use of floor maintenance equipment.

71. In single bedrooms any exposed heating surface at a height of less than 2 m should be guarded if the temperature of the surface greatly exceeds 49°C. This limit of temperature need not be exceeded with conventional low-temperature hot-water heating installations if convectors are used. Radiant type convectors provide an alternative solution since they give a reasonable proportion of their output in radiant form but, since they use plain instead of finned tubing, they do not present the cleaning problem associated with conventional convectors; they are designed to operate at the normal heating system pipe temperatures, but the temperature of their surfaces is of the order of 49°C.

72. Where ceiling-heating systems are used they should conform to the recommendations of the Medical Research Council's Environmental Research Unit. These may be found in the "Guide to Current Practice" of the Institution of Heating and Ventilating Engineers.

73. Underfloor heating is not likely to be a satisfactory form of heating for this type of accommodation.

74. A low-temperature electric heater should be provided at the staff base. Day spaces may have radiant type electric fires with suitable guards. Electric heaters should not normally be required elsewhere, but where they are provided, and where patients can come into contact with them, they should have low surface temperatures or suitable guards, the electric elements being totally enclosed and the heater permanently fixed and connected to the electricity supply.

Ventilation

75. Ward areas should normally be naturally ventilated, but some mechanical ventilation may be necessary to provide satisfactory conditions in certain circumstances. Factors which will influence the need for mechanical ventilation are deep planning of ward floors, depth of perimeter rooms, height of ward blocks, extraneous noise and air pollution.

76. It may normally be expected that the core areas of deep-planned ward floors will be mechanically ventilated at an average rate of about 8 to 10 air changes per hour, but it should be appreciated that the number of air changes for individual rooms will vary according to particular requirements. Perimeter rooms should usually be naturally ventilated but those which are deep-planned, for example multi-bed rooms, and cannot be cross-ventilated effectively by natural means should be mechanically ventilated to augment the natural ventilation to give a rate of three air changes per hour. In such rooms care will be required in locating the diffusers and grilles in order to prevent the formation of stagnant pockets of air in the vicinity of beds remote from the windows.

77. In deep-planned wards, floor-connecting and peripheral corridors which are open along their length to naturally ventilated areas should be assumed to be naturally ventilated, but corridors separated from naturally ventilated areas by walls and doors should be mechanically ventilated; six air changes per hour should be adequate.

78. It is unlikely that the department would be included in a high rise design, but where this is the case ward floors, which can be naturally ventilated in suitable weather conditions but in adverse conditions may need to have the windows closed for long periods, should have mechanical ventilation to provide three air changes per hour in single bedrooms and six to eight air changes per hour in multi-bed rooms.

79. Where mechanical ventilation is provided the general air movement should be from clean to dirty areas, where these can be defined, and therefore there should be no re-circulation of air.

80. Internal rooms should be mechanically ventilated to suit their individual requirements; air inlet grilles will be necessary where ventilation is extract only.

81. One or two single bedrooms in each ward and some day spaces may need to be mechanically ventilated where adequate ventilation is required without opening windows. A ventilation rate of six air changes per hour should be adequate in such cases.

82. Internal lavatories should have mechanical extract ventilation to give ten air changes per hour. Some lavatories on external walls may need mechanical ventilation to comply with the requirements of the Building Regulations 1972.

83. Mechanical extract ventilation should be provided at high level in the central dining room servery, and this may be achieved by the use of hoods over the bain-marie, instantaneous water boiler, call order unit and dish-washer. Mechanical extract ventilation should also be provided at low level in the dirty utility/disposal room and at high level in the E.C.T. treatment room.

84. As stated in paragraph 42, the central dining room should be suitable for use as a hall for occasional concerts, film shows, etc. The staff seminar/conference room (see paragraph 36) may be used for occasional meetings and showing training films. Mechanical extract ventilation should be installed in these rooms, and twenty air changes per hour should usually be sufficient when used for the alternative purposes.

85. In the day hospital some mechanical ventilation may be necessary for the removal of heat, fumes, dust, etc., produced in the general crafts, industrial work area and workshop. Local extract ventilating fans should normally be adequate for this purpose.

86. Care must be taken to ensure an adequate flow of air into any space having mechanical extract ventilation. If fresh air is used for this purpose it must be warmed appropriately, but tempered supply air can often be obtained without excessive draught or noise by fitting grilles in doors or walls connecting such spaces to corridors. Arrangements of the latter kind must not prejudice the fire resistance requirements nor affect the privacy of conversations nor cause unacceptable transfer of noise from one room to another.

87. Where mechanical input ventilation is required the fresh air must be filtered and warmed before being introduced, usually at high level, through suitable diffusers designed to avoid creation of draughts.

88. External discharges should be carried clear of the building where practicable and protected against back pressure from wind.

89. Ventilation plants should include filters of 95 per cent efficiency down to 5 microns to give satisfactory infiltration of the incoming air supplies, and in order to reduce frequency of replacement of filters where the air is dirty it may be desirable to include additional coarse filters to remove larger particles. Filters must be readily accessible for maintenance purposes.

90. Visible indication should be provided to show when the ventilation system is operating. Selection of the most suitable position for indicators should be related to the scope of the ventilation system. For individual units, for example extract fans, the indicator may be incorporated in the control switch. Where a system is provided for a particular room the indicator should be in that room, and in the case of more general systems of ventilation, for example core areas, the indicator would probably best be located at the staff base.

91. Particular care should be given to the type of opening window selected for naturally ventilated wards. Top-opening windows at high level should be provided with a "minimum setting" notch or other adjustment to allow air infiltration without draught to lightly clad patients. In ceiling-heated rooms the incoming air should not be directed at the ceiling.

Water supply

92. The domestic hot water supply should preferably be taken from the central supply installation. If this is not practicable a storage calorifier should be provided, with its capacity based on meeting the maximum requirement for two hours, and the calorifier battery rating should be based on a three-hour recovery period, having regard also to the heat losses from the mains; an allowance of 45 litres per bed should provide sufficient storage. The cold water storage should be sufficient for 24 hours' requirements. This would normally be held centrally in the hospital, but it is usual to provide four hours' storage locally; an allowance of 230 litres per bed per day should be adequate.

93. A drinking water tap or point taken direct from the mains or from protected storage tanks should be provided in each pantry and nursery, at each staff base and also in the day hospital kitchen and central dining room. The size of drinking water supply pipes should be kept to the absolute minimum; the pipes should be properly lagged in ducts and voids where they are in close proximity to heated pipes.

94. Spray-mixing taps should be used on washbasins in staff toilets. Elbow-action taps should be provided in the treatment rooms, the bed areas and in the sluice rooms. It may be necessary to use self-closing taps in the annexe in order to avoid waste. Bath and lavatory basins for patients' use should be fitted with quick filling and emptying fittings. The hot water temperature should be controlled at a maximum of 40°C as a precaution against scalding. Where possible, a range of hot water fittings may be supplied through a thermostatically controlled mixing valve. Alternatively, consideration may be given to low temperature hot water distribution from the calorifier to reduce maintenance and to avoid the use of a large number of mixing valves. If this alternative is adopted a separate hot water circuit at normal temperature will be required for outlets used by the staff, though such duplication should be avoided where possible.

95. Cold water pipes passing through warm, humid rooms should be insulated to prevent condensation and consequent dripping; such insulation must be impervious to moisture and this problem can usually be overcome by careful planning of pipe routes.

96. The hot water circulation system should also serve bathroom towel rails (a built-in radiator may be provided if at a safe temperature) and heating coils in the linen cupboard, the staff changing room and the day-patients' cloakroom.

Kitchen and pantry equipment

97. The central dining-room for in-patients should normally be equipped with a cafeteria-type servery. This should usually be supplied by bulk food trolleys from the general hospital kitchen, but certain limited cooking facilities will also be needed at the servery. Washing-up should normally be done centrally, but some will be done in the servery. The normal scale of equipment required for the servery is as shown in Table 3.

TABLE 3

Equipment	*Day hospital places*		
	80	120	160
One cafeteria counter with fully fitted bain-marie top/hot closet, sneeze shield, shelf, tray slide, cold counter and beverage service point	With 1·8 m hot closet	With 2·4 m hot closet	With 3 m hot closet
One dishwashing machine with timed cycle and rinse water heater, stainless steel benching incorporating sink bowl and separate waste disposal unit	900 cups or 800 side plates per hour	900 cups or 1,200 side plates per hour (*a*)	900 cups or 1,200 side plates per hour (*a*)
One instantaneous water boiler and milk heater unit ..	90/110 litres water per hour; milk capacity 9 litres	90/110 litres water per hour; milk capacity 14 litres	120/150 litres water per hour; milk capacity 18 litres
One stainless steel worktop with grill .. .. .. or One called-order unit including deep fryer, grill, griddle and two boiling rings (*b*)	0·7 m wide	0·7 m wide	0·7 m wide
One refrigerator .. .. or	0·14 m^3	0·2 m^3	0·25 m^3
one smaller refrigerator .. .. with	0·08 m^3	0·14 m^3	0·14 m^3
refrigerated milk dispenser	1 × 23 litres or 2 × 14 litres	2 × 14 litres	2 × 23 litres

(*a*) If required for cups and saucers only the machine for 80 day places will be large enough.

(*b*) The extent of this cooking equipment will depend on the proximity of the general hospital kitchen.

98. A pantry will require a stainless steel sink with hot, cold and drinking water taps, a 0·14 m^3 refrigerator and a twin boiling ring. No fixed kitchen equipment should be provided, but two socket outlets, for electric kettle and toaster, will be required.

Sanitising equipment

99. The patients' utility room should have a sink, a commercial type washing machine capable of handling 4 kg. (dry weight) of linen, a spin dryer of matching capacity and a heated drying cabinet.

100. Each dirty utility/disposal room in the ward block should have a sink with flushing system and 100 mm drain, a lavatory wash-basin and a bedpan washer or disposer.

101. These rooms should also be used as transit stores for normally soiled/foul/infected linen. The dirty utility/disposal room in the treatment suite should also have a sink with flushing system and a 100 mm drain.

Town/Natural gas

102. Gas points in patient areas should be regarded as a potential hazard and provided only where a gas supply is essential. Each fixed item of equipment should be connected via a safety cock of drop lever or similar type and fixed pipework using screwed union connectors as necessary. Where fixed gas pipework is inappropriate the apparatus may be connected via a safety cock, plug-in connector of the type conforming to Gas Council drawing 2025B (and conforming to British Standard 570) and flexible tubes conforming to British Standard 669.

103. Gas points may be required in ward pantries and the central dining room servery. Gas may also be required in the day hospital industrial work-room, workshop and occupational therapy kitchen.

104. Every gas appliance should have a flame-failure safety device.

Piped medical gases and vacuum

105. Where practicable, the hospital piped oxygen and vacuum systems should be extended to provide outlets on the scale shown in Table 4:

TABLE 4

Accommodation	*Oxygen outlets*	*Vacuum outlets*	*Notes*
Single bedroom ..	1	1	Per 30-bed ward.
Special single bedroom	1	1	Per 30-bed ward.
Multi-bedroom .. (male or female)	1	1	To be located on the two-bed side of the room.
Single bedroom .. (annexe)	2 (one in each of two)	2 (one in each of two)	Four single bedrooms should have no outlets.
Multi-bed room .. (annexe)	1	1	
E.C.T. treatment room	1	1	
E.C.T. recovery room	2	2	Area may be divided into male/female sections.
Room for abreaction, behaviour therapy, etc.	1	1	Over bed-head.

106. In those cases where the department is remote from the general hospital or where it is impracticable to extend the hospital system to the department, piped oxygen and piped vacuum installations may be uneconomical. In such situations it will usually be adequate to rely upon the use of portable oxygen cylinders and portable suction equipment.

107. Guidance on the detailed design, testing procedures and maintenance of piped oxygen and vacuum installations is given in Hospital Technical Memorandum No. 22: Piped Medical Gases, Medical Compressed Air and Medical Vacuum Installations.

Lifts

108. It is unlikely that the department will be on more than two floors, and where it cannot be served by central lifts a single bed/passenger lift will normally be adequate, depending upon the siting of the department within the hospital. A single 1,800 kg 24 persons bed/passenger lift will normally be adequate for all departments, but consideration may be given to the provision of two such lifts in 120 and 150 bed designs. A lift speed of 0·5 metres per second with a two-speed control will be adequate.

109. In addition to floor selector buttons, an alarm and door-hold button and a telephone for emergency use should be provided in the lift.

110. Landing controls should consist of lift-call buttons, lift-coming indicator and a direction-of-travel indicator. A red landing signal should indicate that the car is not available, i.e. the car is travelling or a landing door is open.

111. Two panel side-opening doors on car and landing are required, with power operation. The doors should be fitted with sensitive edges or other means to stop movement of the doors and to re-open them if they meet with an obstruction. The lift should have a "car preference" switch so that an attendant can have complete control of the car when required. The transfer from normal passenger control to "car preference" will be by a key-operated switch in the car; operation is then from the car only and the doors remain open until a call is registered for a floor destination. The lift should be silent in operation; noise and vibration from the lift machinery should not be transmitted through the building, and the car and landing doors should be designed for quiet operation.

112. The lift should conform to the requirements of British Standard 2655.

Incinerators

113. A collecting system with disposal in a central hospital incinerator is to be preferred to a number of local units. Local units have the disadvantage of requiring numerous flues which may, in some circumstances, be too long to be effective; they are often overcharged, resulting in incomplete combustion and leaving an objectionable residue to be cleared, and they entail additional maintenance.

Electrical services

General requirements

114. The electrical installation should include wiring and equipment for general and special lighting, socket outlets, heating, ventilation, machinery, call systems, telephones and clocks. A bell-push system will also be required for external doors.

115. For the single bedrooms referred to in paragraphs 47 and 48 the bed-head hand unit or equivalent facility must be demountable. The wiring for the panel should be brought to a recessed terminal box at the back of the bed-head unit, and all working components of the

bed-head unit should be mounted on the face-plate of the unit. The terminal box should be fitted with a cover, held captive, and appropriate fixings for the cover to prevent loss when the bed-head unit is in use.

116. Guidance on factors affecting supply and distribution is available in the following Hospital Technical Memoranda:

No. 7	Electrical Services
No. 8	Safety Code for Electro-Medical Apparatus
No. 11	Emergency Electrical Services
No. 14	Abatement of Electrical Interference.

117. The electrical installation should comply with the requirements of the current edition of the Regulations for Electrical Equipment of Buildings, issued by the Institution of Electrical Engineers.

Electricity supply and distribution

118. The supply should normally be provided by sub-main circuits from the main intake and distribution centre to one or more switchrooms within the department. Local switchgear and distribution boards should be situated so as to minimise the length of circuit wiring. They should be in well ventilated positions, preferably accessible from corridors. A lock should be fitted to any distribution board not located in a locked switchroom. It would be an advantage if the boards could be reached from a standing position. High rupturing capacity (H.R.C.) fuses are recommended for general use. Spare ways and fuses should be provided for later extensions, and space should be allowed for additional units. Weather-proof materials and construction should be used for any external installation.

Artificial lighting

119. When designing the lighting installation and selecting lighting fittings, careful attention should be paid to the reduction of glare, particularly in bed areas. Lighting fittings should be of types which are easily cleaned and maintained. Fittings in stairways and similar locations must be in readily accessible positions.

120. Tungsten lighting will be generally suitable for lighting fittings which will be used intermittently. Except for domestic areas (see paragraph 130) fluorescent lighting will be economical where artificial lighting is required for long periods. It is, however, essential that fluorescent lighting in clinical areas is of one of the recommended types having suitable colour-rendering characteristics for clinical purposes. In such areas the colour chosen for walls, floors and ceilings should be carefully considered. Architect and engineer must co-operate in this task to ensure that the decorative finishes are compatible with the colour-rendering properties of the lamp and that the spectral distribution of the colours of the primary light source is not unduly altered.

121. The recommended illumination values at night at 0·85 m above floor level and at normal head height at the bed-head in bedrooms are given with the limiting glare index in Table 5.

TABLE 5

Accommodation/activity	*Average value of illumination (lux)*	*Limiting glare index*
E.C.T. treatment room Room for abreaction, behaviour therapy, etc.	300	16
Consulting/interviewing room	200	16
Dressmaking General craft and industrial work Workshop	200	22
Art Music Relaxation	200	
Single bedroom	150 (*a*)	13
Interview room Local authority base Office Shop Staff seminar/conference room	150	19
Admission and records office Ante-room Day room Dining and day space Group therapy room Quiet day room Reception, enquiries	150	
Multi-bed room/recovery room	100	13
Bathroom and shower Beauty room Clean utility/preparation room Dirty utility/disposal room Kitchen Nursery Pantry Patients' utility room Staff changing Waiting space	100	
Cleaners' room Corridor Entrance Flower alcove Patients' cloakroom Staircase Store Toilet Trolley and wheelchair bay	80 (*b*)	

(*a*) Capable of being operated at 100 lux and 0·1 lux.

(*b*) At floor level.

122. Where there is lack of daylight in deep-planned internal rooms and corridors it will be necessary to provide a higher intensity of artificial lighting during the day than is normally provided during the hours of darkness. The daylight level of artificial illumination for internal spaces should average 300 lux at working level, except in bathrooms, etc. and corridors. In bathrooms, ablutions, w.c's and cleaners' rooms an average of 150 lux at floor level will be satisfactory. Corridor lighting should provide illumination for day time use of between 200 and 250 lux at floor level.

Lighting designed to these standards of illumination should not provide too great a contrast so that staff moving from one area to another can be expected to adapt themselves sufficiently quickly. It is recommended that the lighting system for these spaces should be designed so that the upper and lower levels of illumination can be readily obtained by local switching arrangements to suit day and night use. Where it is necessary to switch off lamps it is preferable that these lamps be in multi-lamp fittings rather than separate single-lamp fittings.

123. Local switch control of lighting will usually be satisfactory, but general and night lighting in all multi-bed rooms should normally be switched from the staff base. Lighting in corridors, waiting spaces and illuminated signs should be controlled from a central position. The switch positions for staircase lights not centrally controlled should be carefully selected. Local lighting, for example adjustable fittings, bed-head lights, should be separately switched.

Lighting in wards

124. The lighting of the staff base should be carefully designed for the needs of the nurses in particular, but at the same time must not be disturbing to patients, especially at night.

125. The avoidance of glare is important. All lights should be screened from the beds, and no part of a lighting fitting or mirrored reflection visible to any patient in bed should have a luminance of more than 90 candelas per m^2 (60 candelas per m^2 for recessed ceiling-mounted fittings) nor should the luminance on the ceiling or wall from wall-mounted fittings exceed 15 candelas per m^2 for general lighting and 0·3 candela per m^2 for night lighting. These restrictions should be applied also to lighting in corridors, circulation spaces, etc. outside the ward but visible from the beds through unscreened glazing.

126. Lighting fittings with opaque sides and downward louvres have been found suitable for centre of ward illumination. The lamps should be types having recommended colour rendering properties for clinical applications. Night lights of low-wattage tungsten filament may be incorporated in the centre fittings.

127. Single bedrooms should be lit by two fittings, one giving general lighting at 150 lux and between 5 and 10 lux for night lighting, the other giving a spot light of 100 lux for reading at the bed-head (in lieu of a bed-head lighting fitting). The switches for these lights in each of the single rooms referred to in paragraphs 47 and 48 should be in the normal position inside the room.

128. In all multi-bed rooms bed-head lights should be provided for each bed position. They should be wall mounted and may be adjustable, but their movement should be limited to prevent disturbance to other patients. The switch should be of simple on/off wall type or incorporated in the lighting fitting or bed-head unit. The fittings should be designed for low heat gain and should be of robust construction.

129. Lighting in treatment rooms will vary with medical requirements, but generally an adjustable examination light will not be required; a high level of general lighting will usually be adequate for the treatment rooms in this department.

Other lighting

130. Fittings in day rooms, quiet day rooms, dining rooms and multi-bed rooms divided into cubicles should be of domestic design where possible and should harmonize with room decor.

131. In the work areas lighting for benches and machines should be provided preferably by means of fittings, for example fluorescent, positioned over bench or machine. Any portable lamp and any lighting fitting fixed to the machine should operate at extra-low voltage.

132. In compliance with British Standard 2881, a red indicating light should be provided on each drug cupboard with a parallel indicating light in the appropriate nursing office. These lights should be interlocked with the cupboard to give visual indication when the cupboard is unlocked.

Socket outlets

133. Sufficient 13 amp. universal type switched, shuttered socket outlets, connected to ring or spur circuits, should be provided to allow all portable appliances likely to be used simultaneously to be individually supplied from separate convenient outlets.

134. Additional socket outlets, approximately 9 m apart, should be provided as necessary throughout the department, including corridors, to allow for convenient use of domestic cleaning appliances having flexible leads assumed to be 9 m long.

135. The minimum scale of socket outlets is recommended in Table 6.

TABLE 6

Accommodation/activity	*Scale*
Room for abreaction, behaviour therapy, etc.	Four twin outlets in addition to provision for fixed electrical apparatus.
E.C.T. treatment room	Two twin outlets in addition to provision for fixed electrical apparatus.
Consulting/interviewing room Day room Dining and day space Pantry Staff seminar/conference room	Two twin outlets.
Patients' utility room	One twin and one single outlet.

TABLE 6 (continued)

Accommodation/activity	*Scale*
Art Clean utility/preparation room Group therapy room Interview room Local authority base Music Office Quiet day room Secretary's room Shop Staff base	One twin outlet.
Admission and records office Reception, enquiries	Two single outlets.
Beauty room	One single outlet per place.
Multi-bed room Recovery room	Two outlets shared between two beds.
Multi-bed room divided into cubicles Single bedrooms (except those referred to in paragraphs 47 and 48)	One outlet in addition to that for bed position.
Dressmaking	To suit number of appliances, plus one or two for future requirements (depending on size of rooms).
Clerical General craft and industrial work Kitchen Relaxation Workshop	One single outlet for each place or 2·5 m. of benching.
Dirty/utility disposal room Single bedroom referred to in paragraphs 47 and 48	One single outlet.

136. Socket outlets in the treatment, nursing and general working areas should be preferably at working level or at about waist height; outlets should be flush-mounted where possible.

137. The placing of socket outlets between bed positions in multi-bed rooms will be preferable to the arrangement of providing these in the bed-head unit. This should allow the convenient use of both socket outlets at either bed position and also for other purposes, for example domestic floor-cleaning machines.

Other power requirements

138. Fixed appliances rated up to 13 amps. should be permanently connected to 13 amp. fused spur boxes. Appliances rated in excess of 13 amps. should be permanently connected to separate final sub-circuits and independently switched.

139. Most, if not all, of the power-driven machinery in the workshop will have single-phase motors. The possibiility that power-driven machines might be re-positioned in the workshop should be considered and the electrical power distribution system should be designed accordingly. A safety isolating switch, in addition to the usual controls, should be fixed in a prominent position adjacent to each power-driven machine. A master control switch or push-button for all power-driven machines in the room should be located in a prominent position in each therapy room.

140. Isolating switches or other means of isolation should be provided adjacent to extract fans where necessary for the safety of maintenance staff.

141. Indicating lights to show when the electrical supply is switched on should normally be incorporated in electro-medical apparatus and low temperature heating appliances (see Hospital Technical Memorandum No. 8: Safety Code for Electro-Medical Apparatus). Where these are not provided a red or, alternatively, a plain neon lamp behind a clear lens may be required in the plug top or on the adjacent spur box.

Emergency electricity supplies

142. Guidance on the provision of emergency electricity supplies is given in Hospital Technical Memorandum No. 11: Emergency Electrical Services.

Staff location system

143. The hospital staff location system should be extended to this department (see Hospital Technical Memorandum No. 20: Staff Location Systems).

Patient/Nurse call system

144. Reference should be made to Hospital Technical Memorandum No. 15: Patient/Nurse Call Systems. A non-auditory call system should be satisfactory for most wards; the ward layout may, however, have some influence on call-button requirements and the location of call-indicators. Normally call-buttons will be required at each acute bed position and in treatment rooms, patients' bathrooms, ablutions and wheelchair w.c's. A reassurance light should indicate to the patient that the call has been made. The call-button should be of the standard type, the flexible lead having a plug connection so that it can be removed.

145. An immediate visual or audible indication that a call has been made should be provided at the staff base and in other parts of the ward where nursing staff may be present. Patient/nurse calls originating from the annexe should be indicated at the staff base, and patient/nurse calls originating in the day hospital should be indicated in the nursing office/treatment room area in a similar manner. These indicating signals should give responding staff an unambiguous identification of the source of the call.

146. An emergency button should be provided at each bed-head so that a nurse attending and unable to leave a patient can summon assistance.

147. In wards the patient/nurse call facilities should usually be incorporated in the bed-head unit. For other call points flush-mounted call-buttons with reassurance lights should be provided, except in treatment rooms where a pear-push may be more suitable.

148. Provided a cancellation-button is sited within view of patients originating the calls, it can be arranged to cancel a number of call points. Separate facilities should be provided to cancel emergency calls originated by staff.

149. A further quite independent nurse/nurse assistance call system should be provided as follows:

Calling station	*Location for indication of call*
Clinical psychologist's room	Reception
Nursery	Reception
Recovery room	E.C.T. treatment room
Room for abreaction, behaviour therapy, etc.	Reception
Staff base of each ward.	Staff base in one adjacent ward.

An audible indication will be required at each of these locations and a muting switch should be fitted to minimise disturbance to patients at night. No reassurance light will be required at these calling stations. Staff base call-buttons should be discreetly located in order to minimise the possibility of misuse by patients.

150. In the nursery a nurse assistance call-button will be required. This must indicate by visual or audible means in the ward staff base. No reassurance light will be required at the call-button.

151. In the day hospital a patient/nurse call-button will be required for each wheelchair w.c. This must indicate by visual or audible means in reception. A reassurance light will be required at the call-button.

Radio and television

152. Radio and other sound facilities providing a choice of five channels should be relayed from central equipment to all bed-head units. In ward day-rooms, the day hospital dining room, general industrial workrooms, dressmaking rooms and clerical training rooms, radio should be available from loud speakers, each incorporating a programme selector, on/off switch and a volume control, connected to the central system. Provision must be made for locking the volume control.

153. Television aerial sockets connected to a communal aerial via an amplifier set should be provided in all day rooms or in a special television room for a group of wards rather than in bed areas. Each day space should have two outlets so that although only one will normally be used the room can be divided as necessary and the set resited without difficulty. Only two sockets should be provided in the day hospital regardless of the latter's size. One of these should be located in the industrial workroom and the other in the dining room. Television aerial sockets may also be required in wards used for patients who are unable to leave their beds or rooms. In these instances the sound should be conducted through bedside head-sets to earphones to avoid disturbing patients who do not wish to listen. Where television sets are installed in day rooms it may be desirable to provide facilities for the sound to be conducted by earphones to ambulant patients in order to stop any spread of noise to nearby bed areas.

154. Television sets should, where practicable, be placed to minimise interference by patients.

Patient's bed-head unit

155. A flush-mounted bed-head unit should usually be provided at each bed position and should include an outlet for a nurse call push-button, reassurance light, cancellation-button and the emergency nurse call-button. The socket outlet for the pear-push nurse-call button should differ from any other type of socket outlet.

156. A multi-channel outlet should also be provided so that a hand unit or other facility convenient to the patient incorporating the radio, television, etc. sound, programme selector and off switch and volume control, the patient/nurse call-button, reassurance light and the bed-head light switch can be plugged into the bed-head unit.

Telephones

157. Telephone facilities for internal and external calls should form part of the hospital telephone system and should normally be provided in each consulting room, interview room, staff base, nursing and occupational therapist's office, ante-room, conference room, reception/enquiries, admission and records office, clinical psychologist's room, tutor's room, secretary's room, social workers' room, domestic administrator's office and local authority base. Telephones should normally be of desk pattern, and for the nursing offices and staff base in each ward should be fitted with an indicating call light visible from the corridor and a bell of subdued tone which, when desired, may be switched out of circuit independent of the call light.

158. G.P.O. telephone socket outlets for use with a portable call box unit may be provided on the following scale:

30-bed ward:
One socket outlet to serve all five single bedrooms.
One socket outlet to serve both the multi-bed rooms.
One socket outlet in the day space.
Annexe:
One socket outlet to serve the six single bedrooms.
One socket outlet to serve the four-bed room.

Special telephone jacks are available for use with these socket outlets. Outlet boxes to suit these jacks will be required in the telephone conduit or duct system.

Telephone kiosks or acoustic hoods

159. One kiosk or acoustic hood should be provided at the entrance to the ward block and another at the entrance to the day hospital. Day hospitals with 160 places may have two kiosks or hoods at the entrance. A G.P.O. call-box telephone should be fitted in each kiosk or hood at a height convenient for use by chair-bound patients.

160. The telephone connections for telephone socket outlets and kiosks or hoods should be made direct to the G.P.O. telephone exchange and not via the hospital telephone exchange.

Electric clocks

161. Electric clocks will normally be required in the following accommodation:

Clerical room.
Day room.
Dining and day space.
Dining room.
E.C.T. treatment room.
General craft and industrial workrooms.
Group therapy room.
Kitchen.
Nursery
Room for abreaction, behaviour therapy, etc.
Staff base
Staff seminar/conference room
Waiting space
Workshop.

Clocks should have silent movements and in the E.C.T. treatment room and the room for abreaction, behaviour therapy, etc. should have sweep second hands which can be driven by a small independent motor if necessary. 230 mm diameter dials should be adequate for most situations.

Sound relay system for group therapy room

162. Where a sound relay system is required, a specialist contractor should be engaged to design and construct an installation that will be both effective and unobtrusive. Typically it would consist of three omni-directional microphones incorporated in or suspended near to the suspended ceiling and wired to a switching cabinet and amplifier in the observation room.

163. The overall sound level in the group therapy room should not exceed 30dB(A) and, in the usual environment, this level is determined almost entirely by the contributions from the 63 and 125 Hz octave bands, each of which should be less than 35dB sound pressure level if the room is naturally ventilated or 45dB sound pressure level if the room is mechanically ventilated. The combined effect of wall, floor and ceiling treatment, curtains and soft furnishings should be to reduce the reverberation time to less than 0·5 seconds at 500 Hz.

VII. Cost and other relevant information

Cost control

164. For cost control purposes the lump sum Cost Guide figures for the various functional units shown in the Departmental Cost and Area Guide (Capricode—Hospital Building Procedure Note No. 6) will be applicable. These figures include basic accommodation together with circulation space and an allowance in respect of additional accommodation and/or additional engineering.

165. Building Notes recommend the standards of accommodation and services which the Department of Health and Social Security consider it reasonable to provide. Boards are at liberty to depart from the design recommendations given in Building Notes provided they are satisfied that the standards of accommodation and services they adopt are adequate. The Departmental Cost Allowance, however, is to be regarded as the maximum sum available for a department requiring the basic services specified in this Note. Boards are encouraged to produce designs for the provision of appropriate accommodation and services at a cost less than the Departmental Cost Allowance.

166. Cost Guide figures for the department which is the subject of this Note provide for basic and additional accommodation detailed in section V and scheduled in the appendix, and for engineering services detailed in section VI and paragraph 70.

Apportionment of costs

167. An assessment of the notional cost apportionment between the building and engineering service elements should be made at Stage C1 (Capricode—Hospital Building Procedure Note No. 1).

Circulation space

168. For the purpose of preliminary planning the area occupied by internal circulation space and internal walls and partitions represents, on average, an addition to the net floor area of basic and additional accommodation of 37 per cent for the wards, 38 per cent for the annexe and 35 per cent for the day hospital.

Plant room

169. The plant room areas set out in Table 7 have each been calculated to house the mechanical ventilation/air-conditioning plant for a single department scheme and some reduction in these areas should be possible in a multi-department development:

TABLE 7

Accommodation	*Number of beds or day places*	*Area* m^2
Wards	60	51·0
	90	83·5
Wards and annexe ..	120/10	104·5
Day hospital	80	32·5
	120	46·5
	160	49·0

Engineering services

170. The following engineering services are included in the cost of basic accommodation shown in the Departmental Cost and Area Guide:

(*a*) *Mechanical services*

Heating	Low-pressure hot water flush-fitting radiator system.
Ventilation	Extract from dirty utility/disposal rooms and toilets, plenum supply to and extract from certain single bedrooms (see paragraph 81), dining, treatment and staff seminar/conference rooms.
Hot and cold water services	From central supply, not including calorifiers and storage tanks.
Medical gases	Piped from central supply, not including plant.
Fire protection	Supply from rising main to hose reel points.

(*b*) *Electrical services*

Distribution and sub-mains within the department, lighting (including fittings), socket outlets, clocks, patient/nurse call system, telephones, staff location system (including receivers), fire alarms and wiring for all Groups 1 and 2 equipment, mechanical services, standby services, radio and television and bed-head units.

(*c*) *Equipment*

Cafeteria counter, dish-washing machine, waste disposal unit, instantaneous water boiler and milk heater unit, call order unit, washing machines, spin dryers, drying cabinets, bedpan washers, bed-head units, receivers for staff location system, lathes, band-saws, planing machine, double-ended grinders, drilling machines and forges.

APPENDIX

Schedule of accommodation

(*Note:* The schedule is intended to illustrate one possible configuration of the facilities described in the Building Note, and in this example those for which a choice of locations within the department is possible, e.g. E.C.T. suite, form part of the day hospital.)

A. 30-bed ward

(The areas below relate to a 30-bed ward unless otherwise indicated. The ward should normally be mixed and should usually consist of five single rooms and, for each sex, multi-bed rooms, some of which should be divided into cubicles for patients who are progressing towards normal community life and need less observation.)

Accommodation	*Area m²*	*Number required*	*Notes*
(*a*) Entrance; waiting space, etc. ..	10·0	1	Easy access is required to each ward from main entrance and reception point. Some space for wheelchairs, trolleys and waiting (associated, if possible, with the nursing office (*p*) and consulting rooms (*q*)) will be needed and should be divided as required.
(*b*) Bedroom:			
(i) Single	9·5	2	Each with washbasin.
(ii) Special single	11·0	3	Each with washbasin (suitable for mother and baby).
(iii) Multi-bed room (five beds) ..	42·0	2	Beds screened by removable curtains.
(iv) Multi-bed room divided into cubicles (five beds)	39·0	3	Divided into cubicles to provide privacy, e.g. bed spaces divided by light partitions or furniture as well as curtains. Two washbasins, each with screening curtains, are suggested for (*b*) (iii) and (*b*) (iv) for use by staff and patients. Lockers with hanging space and hospital type beds will be appropriate for (*b*) (i) to (*b*) (iii), but a small wardrobe and dressing table and divan type bed will be more suitable for (*b*) (iv).
(*c*) W.c. and washbasin:			
(i) Two w.c's (one of wheelchair size) and washbasins for each sex	11·0	2	Serving patients in (*b*) (i) to (*b*) (iii)
(ii) One w.c. and one washbasin associated with each multi-bed room divided into cubicles	3·5	3	Serving patients in (*b*) (iv) (additional washbasins for washing will be needed if not provided in (*b*) (iii) and (*b*) (iv))
			In all female toilet areas a mirror will be needed, located not over a washbasin but over a deep shelf.
(*d*) Bathroom and shower:			
(i) Two bathrooms (one assisted) and one assisted shower	16·5	1	Associated with (*b*) (i) to (*b*) (iii).
(ii) One bathroom and one shower	7·5	1	Associated with (*b*) (iv).
(*e*) Patients' utility room	10·0	1	For washing clothes, etc.
(*f*) Beauty room	9·5	1	For hairwashing, etc.
(*g*) Day room (sub-divided as required for dining, etc.)	70·0	1	140 m² if shared between two wards.
(*h*) Quiet day room	11·0	1	Preferably two shared between two wards, allowing use of one for each sex.
(*i*) Nursery	11·0	1	Close to staff base. For up to four infants of in-patients as required, including bathing, feeding and sleeping facilities.
(*j*) Store	4·5	1	For suitcases, etc.
(*k*) Telephone	1·0	1	Kiosk/acoustic hood or trolley.
(*l*) Staff base	8·5	1	Placed for close observation of (*b*) (i) to (*b*) (iii)
(*m*) Clean utility/preparation room ..	14·0	1	Associated with staff base. For storage of C.S.S.D. items, drugs, etc. and trolley preparation.
(*n*) Dirty utility/disposal room	8·0	1	To include disposal area and urine testing.
(*o*) Pantry	8·5	1	For beverages, etc. May be used by patients.

Accommodation	*Area m²*	*Number required*	*Notes*
(*p*) Nursing office	11·0	1	For ward administration. To include cupboard for personal belongings of nursing officer in charge.
(*q*) Consulting and interviewing room ..	13·0 10.0	2 1	Preferably located near entrance to ward to allow for occasional use by staff and patients of other wards or day hospital.
(*r*) Cleaners' room	4·5	1	With space for storing cleaning material, equipment and a staff locker (for valuables). Number, type and size of rooms may be varied according to grouping of wards and the pattern of domestic management.
(*s*) Flower alcove	2·5	1	With sink and storage shelves.
(*t*) Ward store	5·5	1	For apparatus, etc.
(*u*) Staff toilet	5·5	2	For each sex, one w.c. and one washbasin. Small lockers will be needed in these areas for staff to keep valuables, e.g. handbags, while on duty. Also hooks for cloaks, etc.
(*v*) Electrical switchgear cupboard ..	0·5	1	An electrical switchgear room of 2·5 m² will be needed in departments of 60, 90 and 120 beds.

B. Annexe

(Ten beds with associated day spaces for special groups of patients of both sexes.)

Accommodation	*Area m²*	*Number required*	*Notes*
(*a*) Bedroom:			
(i) Single	9·5	6	Each with washbasin — Furnishing to depend on category of patients.
(ii) Multi-bedroom (four beds) ..	32·5	1	With washbasin — Furnishing to depend on category of patients.
(*b*) Bathroom:	7·5	1	With washbasin.
(i) Shower	3·0	1	In all female toilet areas a mirror will be needed, located not over a washbasin but over a deep shelf.
(ii) W.c.	2·0	2	Each with washbasin — In all female toilet areas a mirror will be needed, located not over a washbasin but over a deep shelf.
	3·0	1	Wheelchair size — In all female toilet areas a mirror will be needed, located not over a washbasin but over a deep shelf.
(*c*) Dining and day space	56·0	1	Sub-divided as required for dining, group therapy, etc.
(*d*) Quiet day room	14·0	1	
(*e*) Patients' utility room	7·5	1	For washing clothes, etc. Also to include washbasin with shampoo spray.
(*f*) Telephone	1·0	1	Kiosk/acoustic hood or trolley.
(*g*) Staff base	7·5	1	Located for close observation of bedrooms.
(*h*) Clean utility/preparation room ..	8·5	1	Associated with staff base. For storage of C.S.S.D. items, drugs, etc., and trolley preparation.
(*i*) Dirty utility/disposal room	7·5	1	To include disposal area and urine testing.
(*j*) Pantry	5·5	1	For beverages, etc. Associated with dining/day space.
(*k*) Nursing office	11·0	1	For ward administration. To include cupboard for personal belongings of nursing officer in charge.
(*l*) Interviewing room	11·0	2	
(*m*) Cleaners' room	4·5	1	With space for storing cleaning material, equipment and a staff locker (for valuables). Number, type and size of rooms may be varied according to grouping of wards and the pattern of domestic management.
(*n*) Ward store	4·5	1	
(*o*) Staff toilet	5·5	2	For each sex, one w.c. and one washbasin. Small lockers will be needed in these areas for staff to keep valuables, e.g. handbags, while on duty. Also hooks for cloaks, etc.
(*p*) Electrical switchgear cupboard ..	0·5	1	

C. Day hospital

(For treatment both of patients from the community and in-patients from the wards who are well enough to attend. Should include not only accommodation for occupational and group therapy and interviews, but also administrative offices, the E.C.T. suite and dining facilities.)

	Number of beds in department (excluding annexe)		
	60	90	120
Average number of in-patients likely to attend day hospital at any one time ..	40	60	80
Average number of patients from the community likely to attend day hospital at any one time	40	60	80
Total average number of patients likely to attend day hospital at any one time	80	120	160
Average number of places for which to design day hospital*	80	120	160

* This will normally be the maximum number attending at any one time, though careful programming of the use of space may enable numbers at times to be slightly exceeded (see paragraph 11).

Accommodation	80 *Places*		120 *Places*		160 *Places*		*Notes*
	Area m²	*No. required*	*Area m²*	*No. required*	*Area m²*	*No. required*	
(*a*) Entrance and associated areas (i) Reception, enquiries and waiting space	20·0	1	28·0	1	36·0	1	The reception desk should be placed to allow observation of the main entrance to the department, which will serve also as the entrance to the day hospital. The main waiting space should be close to reception.
(ii) Admission and records office	9·5	1	11·0	1	13·0	1	To adjoin reception. Current records of day-patients to be kept here.
(iii) Nursery	18·5	1	23·0	1	28·0	1	To include children's w.c. and wash-basin and storage space for toys, etc. Some supervision from reception desirable.
(iv) Nursing office	11·0	1	11·0	1	11·0	1	For nursing administration of day hospital. Patients' valuables may be stored here.
(v) Patients' cloakroom ..	9·5	1	13·0	1	16·5	1	To be easily supervised from reception.
(vi) Telephone kiosk/acoustic hood	1·0	1	1·0	1	1·0	2	To be at level suited for wheelchair patients. Writing shelf required.
(*b*) Central dining (i) Servery	22·5	1	27·0	1	31·5	1	To include cafeteria, with "customers" side screened from main dining room, and some facilities for limited cooking and washing up (extent to depend on facilities provided by general hospital kitchen).
(ii) Dining room/coffee lounge	105·0	1	152·5	1	200·0	1	For use both by in-patients attending from the wards and patients attending from the community and easily accessible to both. To be suitable for use for film shows and to serve as a central meeting place for occasional concerts, parties and meetings. Should be sub-divided, e.g. with curtains or movable room dividers, to minimise apparent size. The dining room part at 1·3 m² per place, should seat 50, 75 and 100, respectively; at breakfast and supper all in-patients who are well enough to leave the ward will be accommodated, but at lunch, due to presence of patients from the community, two sittings will usually be needed. The remaining part should be furnished to function as a coffee area and general lounge.

Accommodation	80 *Places*		120 *Places*		160 *Places*		*Notes*
	Area m²	*No. required*	*Area m²*	*No. required*	*Area m²*	*No. required*	
(*c*) Occupational therapy							
(i) General craft and industrial work	79·0	1	105·0	1	130·0	1	Breakdown of occupational therapy areas will depend to some extent on local conditions of employment and industry. The apportionment of areas (*c*) (i) to (*c*) (vii) is thus a suggestion of a balanced occupational therapy service rather than a firm statement. Areas, in particular (*c*) (i) to (*c*) (iv), should be designed to allow maximum sub-division or regrouping according to need and to be suitable for evening recreation. Control of noise from areas (*c*) (ii), (*c*) (v) and (*c*) (vi) must be considered. Scope of industrial work is varied and its light (e.g. simple packing and assembly) or heavy nature will determine whether it should be carried out in a general or workshop type of area. In all areas space should be allowed for wheelchair manoeuvring. Wall cupboards will be needed for materials in use and articles being made.
(ii) Clerical (including typing, printing, duplicating)	40·0	1	52·0	1	64·0	1	
(iii) Dressmaking	30·0	1	40·0	1	50·0	1	
(iv) Art	18·5	1	26·0	1	33·5	1	
(v) Music	20·5	1	29·0	1	36·0	1	
(vi) Workshop (certain cases only)	65·0	1	87·5	1	110·0	1	Carpentry, "do-it-yourself" techniques, etc. Provision of electrical installations should be limited to power points at 2·43 m. intervals.
(vii) Relaxation	16·5	1	18·5	1	20·5	1	For quiet activities or resting.
(viii) Occupational therapy kitchen	28·0	1	37·0	1	46·5	1	With storage for perishable foods.
(ix) Occupational therapy general office	9·5	1	11·0	1	13·0	1	Located centrally to areas (*c*) (i) to (*c*) (viii) to allow easy supervision.
(x) Head occupational therapists's office	7·5	1	7·5	1	7·5	1	Adjoining (*c*) (ix).
(xi) Store for occupational therapy equipment and materials	28·0	1	37·0	1	46·5	1	Located centrally to occupational therapy areas and with easy access from outside for deliveries. (More space will be needed if the general hospital central stores do not hold bulk supplies.) Should preferably be sub-divided, each part with lockable double doors.
(*d*) Group and individual therapy							
(i) Group therapy room ..	18·5	1	18·5	2	18·5	2	May also be used for staff meetings.
	28·0	1	28·0	1	28·0	2	One room may adjoin dining room, with a movable (but sound-resistant) partition to allow extension of the latter. If the general hospital has a teaching function, one group therapy room should have a one-way glass panel and sound relay system so that students may observe a session from outside.
(ii) Treatment room ..	14·0	1	14·0	1	14·0	1	For storing and administering drugs, dressings, etc. and first-aid. May adjoin nursing office (*a*) (iv). Examination couch needed.
(iii) Small dirty utility/disposal room	3·5	1	3·5	1	3·5	1	For disposal, etc. Adjoining (*d*) (ii).
(iv) Clinical psychologist's room	16·0	1	16·0	1	16·0	1	Office/room for testing. Some sound-proofing needed.
(v) Room for abreaction, behaviour therapy, etc.	16·0	1	16·0	1	16·0	1	Preferably adjoining (*d*) (iv). Some sound-proofing needed. Sufficient socket outlets should be provided for electronic equipment.

Accommodation	80 *Places*		120 *Places*		160 *Places*		*Notes*
	Area m^2	*No. required*	*Area* m^2	*No. required*	*Area* m^2	*No. required*	
(*e*) E.C.T. suite							
(i) Waiting space	18·5	1	18·5	1	18·5	1	
(ii) Patients' toilet	3·5	2	3·5	2	3·5	2	Close to (*e*) (i). May be combined with main patient toilets (*g*) (i) and (*g*) (ii) if these are nearby. W.c. with washbasin for each sex with facilities for urine specimen collection. In all female toilet areas a mirror will be needed, located not over a washbasin but over a deep shelf.
(iii) Trolley and wheelchair bay	9·5	1	9·5	1	9·5	1	Main trolley bay for whole department.
(iv) Consulting room ..	11·0	1	11·0	1	11·0	1	With examination couch, washbasin, etc. May be used for E.C.G. prior to E.C.T.
(v) Ante-room	9·5	1	9·5	1	9·5	1	Intercommunicating with (*e*) (i), (*e*) (vi) and (*e*) (ix). For preparing patient and placing on trolley prior to being wheeled into treatment room.
(vi) Treatment room ..	16·5	1	16·5	1	16·5	1	For anaesthetizing and treating the patient. Also for other medical treatments. Worktop and storage space needed for instruments. Also space for anaesthetic trolley, electrical treatment equipment, suction and resuscitation apparatus, washbasin with elbow action taps and an X-ray viewing panel. Intercommunicating with (*e*) (i), (*e*) (v) and (*e*) (vii) to (*e*) (ix).
(vii) Clean utility/preparation room	7·5	1	7·5	1	7·5	1	For storage of C.S.S.D. items, drugs, etc. and trolley preparation.
(viii) Dirty utility/disposal room	7·5	1	7·5	1	7·5	1	Direct access needed to (*e*) (i). For urine testing, disposal, etc.
(ix) Recovery room	67·0	1	67·0	1	67·0	1	For 12 trolleys or beds on which patients can recover under nursing supervision. Bed positions (minimum 1·5 m centres) to be curtained. Washbasin with elbow action taps needed. Could be used for meetings, etc., when E.C.T. not in progress.
(*f*) Office suite							
(i) Consulting room ..	16·0	1	16·0	1	16·0	1	
(ii) Interviewing room for doctors, social workers, etc.	11·0	5	11·0	6	11·0	8	May also be used by visiting staff, e.g. general practitioners, domiciliary nurses and social workers.
(iii) Office for nursing officers	11·0	3	11·0	3	11·0	4	Lockable filing cabinets needed for staff records, etc.
(iv) Office for tutor ..	11·0	1	11·0	1	11·0	1	Tutor from nurse training school.
(v) Social work office ..	11·0	1	11·0	1	11·0	1	For hospital or local authority social workers.
(vi) Local authority base ..	11·0	1	11·0	1	11·0	1	For local authority staff while working in the department.
(vii) Domestic administrator's office	11·0	1	11·0	1	11·0	1	If required by general hospital policy.
(viii) Senior secretary ..	11·0	1	11·0	1	11·0	1	Adjoining (*f*) (ix). Officer in charge of the department's clerical services.

Accommodation	80 Places		120 Places		160 Places		Notes
	Area m^2	No. required	Area m^2	No. required	Area m^2	No. required	
(ix) Secretaries	25·0	1	32·5	1	40·0	1	For three, four and five secretaries, respectively, one medical secretary per therapeutic team and one nursing secretary for each department.
(x) Staff seminar/conference room	37·0	1	37·0	1	37·0	1	For seminars, etc. Blackout facilities needed for showing training films.
(*g*) Service areas							
(i) Patients' toilet (male):	16·0	1	18·5	1	22·5	1	Toilets to be easily accessible from main entrance and central dining and occupational therapy areas. One w.c. for each sex to be of wheelchair size; supporting handrails needed in these areas. One washbasin for each sex, to include shampoo spray. In all female toilet areas a mirror will be needed, located not over a washbasin but over a deep shelf.
(*a*) W.c.		2		3		3	
(*b*) Urinal		2		2		3	
(*c*) Washbasin		3		4		5	
(*d*) Shower		1		1		1	
(ii) Patients' toilet (female):	17·5	1	21·5	1	25·0	1	
(*a*) W.c.		4		5		6	
(*b*) Washbasin		4		5		6	
(*c*) Shower		1		1		1	
(iii) Staff toilet (male):	9·5	1	9·5	1	13·0	1	Preferably adjoining (*g*) (v). For use of all male staff working in day hospital.
(*a*) W.c.		1		1		1	
(*b*) Urinal		1		1		2	
(*c*) Washbasin		1		1		2	
(*d*) Shower		1		1		1	
(iv) Staff toilet (female):	10·0	1	10·0	1	15·0	1	Preferably adjoining (*g*) (vi) (see also last note under (*g*) (i) and (*g*) (ii)). For use of all female staff working in day hospital.
(*a*) W.c.		2		2		3	
(*b*) Washbasin		2		2		3	
(*c*) Shower		1		1		1	
(v) Staff changing (male) ..	12·0	1	16·5	1	21·5	1	For non-resident staff only, using individual locker system. May be omitted or modified if they use changing accommodation in the general hospital.
(vi) Staff changing (female)	18·5	1	26·0	1	33·5	1	
(vii) Store	7·5	1	7·5	1	7·5	1	For stationery and other general uses.
(viii) External store	7·5	1	9·5	1	11·0	1	For outdoor games equipment, chairs, garden tools, etc.
(ix) Cleaners' room	4·5	2	4·5	2	4·5	2	Located centrally to areas served. The two rooms could be combined in a single (larger) room if the day hospital is all on one floor (see also (*r*) of Section A).
(x) Electrical switchgear room	2·5	1	2·5	1	2·5	1	
(xi) Electrical switchgear cupboard	0·5	3	0·5	3	0·5	3	

D. Additional accommodation

Accommodation	80 Places		120 Places		160 Places		Notes
	Area m^2	No. required	Area m^2	No. required	Area m^2	No. required	
(*a*) Staff common room/lounge	18·0	1	24·0	1	30·0	1	Only if there is no similar provision nearby in the hospital. May be centrally located in department. For use of all staff.
(*b*) Shop, with adjacent store ..	9·5	1	9·5	1	9·5	1	Only if there is no central shop in the hospital.
(*c*) Greenhouse	18·5	1	18·5	1	18·5	1	
(*d*) Tool shed	4·5	1	4·5	1	4·5	1	

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Prices in brackets include postage
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